Oct. 20, 1953 F. A. TAYLOR 2,655,956

ANGULARLY ADJUSTABLE SAW GUIDE WITH BOARD CLAMP THEREON

Filed Aug. 18, 1952

FIG. 1.

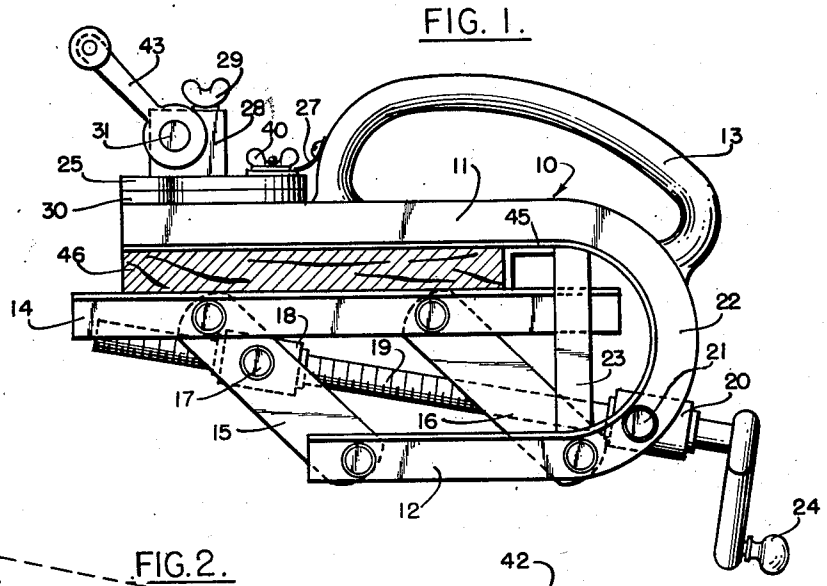


FIG. 2.

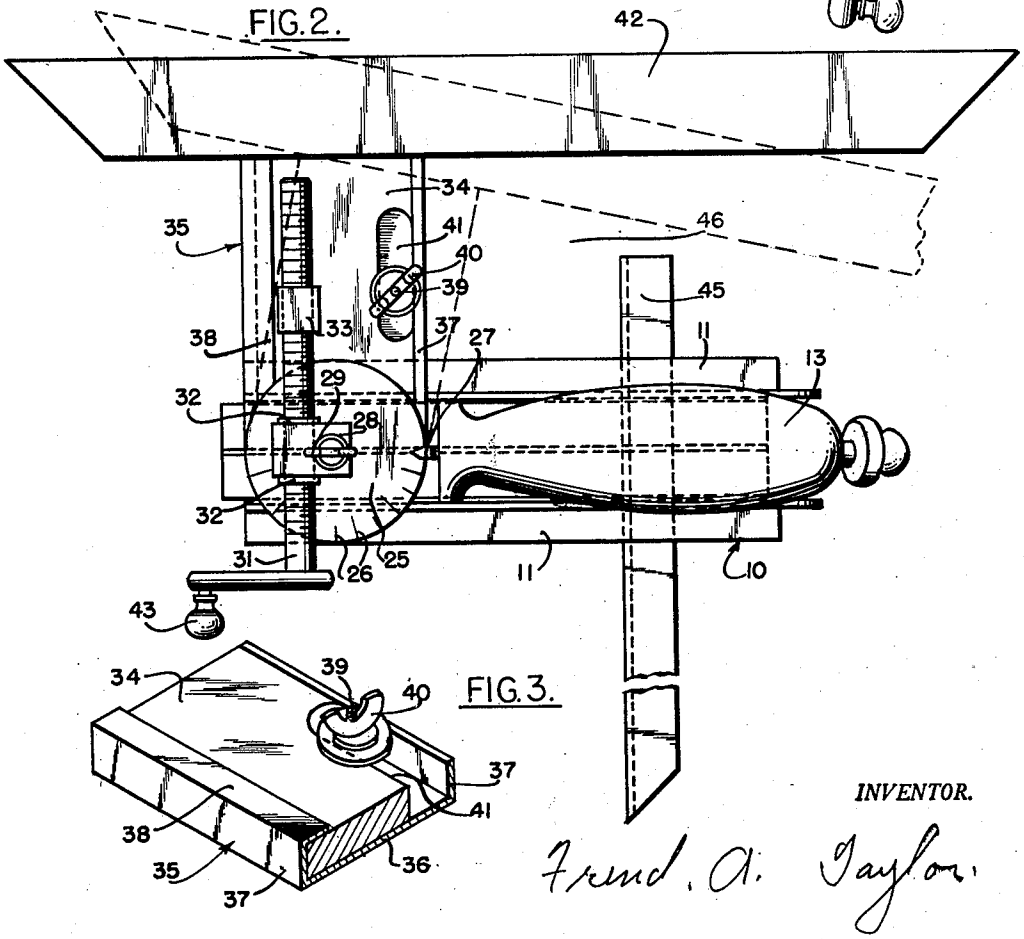


FIG. 3.

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ANGULARLY ADJUSTABLE SAW GUIDE WITH BOARD CLAMP THEREON

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2 Claims. (Cl. 143—6)

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The present invention relates to an angularly adjustable saw guide with a board pressure plate or clamp thereon and it consists in the combinations, constructions and arrangements of parts herein described and claimed.

Generally there is provided an adjustable saw guide which consists of a vertically extending frame of generally U-shaped contour having a T-head affixed to the upper leg of such frame and having a pressure bar interconnected by a pair of links with the lower leg of the frame. A novel screw-operated arrangement is provided for raising and lowering the pressure bar against the underside of the upper leg of the frame. Atop the frame there is revolubly mounted a rotary guide plate which has threaded therein an elongated shaft which extends threadably through a collar mounted upon a bar extending slidably into an elongated socket member which, in turn, is affixed perpendicularly to one side of a saw fence or guide. Means is provided for adjusting the bar within the socket member and means is also provided for locking the rotary plate in desired positions. The use of the device is such that it may be placed at any angle desired upon a piece of wood or the like to be sawed and thereafter the saw guide or fence may be utilized to guide a saw in cutting the wood upon the desired angle.

It is accordingly an object of the invention to provide a device of the character set forth which is simple in construction, inexpensive to manufacture and yet effective and efficient in use.

Another object of the invention is to provide a novel saw guide having means whereby the same may be selectively fixed in position upon a work piece.

Another object of the invention is to provide, in a device of the character set forth, a novel pressure plate and operating means therefore, such plate and means both forming parts of the invention.

Other and further objects of the invention will become apparent from a reading of the following specification taken in conjunction with the drawing, in which:

Figure 1 is a side elevational view of an embodiment of the invention,

Figure 2 is a plan view thereof, and

Figure 3 is a fragmentary isometric view illustrating a bar, a socket for the bar, and locking means for the same, such members forming parts of the invention.

Referring more particularly to the drawing, there is shown therein a device of the character

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set forth comprising a frame generally designated at 10 and being of generally U-shape. There is provided as a part of the frame a pair of upper legs 11 and a pair of lower legs 12, the lower legs being relatively shorter than the upper legs and both sets of legs, it will be noted, extend in a horizontal direction. An operating handle 13 is affixed atop the upper legs 11.

A horizontally extending pressure or clamp plate 14 is connected with the lower legs 12 by a pair of forward links 15 and a pair of rearward links 16. A transverse shaft 17 interconnects the legs 15 and has mounted revolubly thereon a collar 18 through which is threaded, as indicated at 19, an elongated shaft which is revolubly mounted in a non-threaded collar 20, which, in turn, is revolubly mounted upon a transverse shaft 21 carried by the bight portions 22 of the frame 10. A pair of vertically extending brace members 23 interconnect the pairs of legs 11 and 12 adjacent such bight portions 22 and the rearward end of the shaft 19 is provided with an operating handle 24.

Revolubly mounted atop the outer ends of the legs 11 is a circular plate 25 provided with indicia 26 adjacent its peripheral edge. A pointer 27 is affixed to the forward end of the handle 13 and is adapted to cooperate with the indicia 26. A block 28 is affixed to the upper side of the member 25 and a locking screw 29 extends through the block 28 and the member 25 and is engaged in a base plate 30 carried by the legs 11 as a support for the revoluble plate 25.

A shaft 31 extends through one side of the block 28 and is revolubly mounted therein, being provided with a pair of retainer collars 32 one mounted at each side of the block 28 to maintain the same in fixed longitudinal position with respect to the block 28. The shaft 31 extends threadably through a collar 33 mounted atop a bar 34 which is longitudinally slidable in a socket member 35 having a bottom wall 36, side walls 37 and an inwardly extending flange 38 formed integrally with one of the side walls 37. A vertically extending screw 39 is affixed to the bottom wall 36 and is provided with a wing nut 40. The screw 39 extends through a slot 41 formed longitudinally in the bar 34. The socket member 35 is perpendicularly affixed to the inner face of a saw guide 42 and the inner end of the shaft 31 is provided with an operating handle 43. Affixed perpendicularly with respect to the frame 10 and to the undersides of the inner portions of the upper legs 11 thereof is a T-head 45.

In operation, when it is desired to cut, for example, a piece of wood 46, it is only necessary to place the present device thereupon with the T-head 45 abutting one of the side edges of work piece 46. Thereupon the wing screw 29 may be loosened and the plate 25 turned until the desired indicia 26 comes into registry with the pointer 27. Thereupon the wing nut 29 may be tightened to lock the plate 25 with respect to the frame 10. Thereafter the guide plate or fence 42 may be moved toward or away from the plate 25 by first loosening the nut 40 and thereafter turning the handle 43 until the fence 42 is in desired position whereupon the wing nut 40 may be tightened to lock the bar 34 within the socket 35. The device may be held in position upon the board 46 by revolving the handle 24 until the links 15 and consequently the links 16 are rotated to bring the pressure plate 14 tightly against the underside of the work piece 46 to thereby securely hold the device upon such board.

While but one form of the invention has been shown and described herein, it will be readily apparent to those skilled in the art that many minor modifications may be made without departing from the spirit of the invention or the scope of the appended claims.

What is claimed is:

1. A device of the character described comprising a U-shaped frame having upper horizontal legs, lower horizontal legs, and a bight portion,

a circular plate revolubly mounted upon said upper legs, a bar affixed to and extending outwardly from said plate, a socket slidably receiving said bar, a guide fence affixed at right angles to the outer end of said socket, means for locking said bar in selected positions in said socket, and means for locking said frame to a work piece, said last-named means including a horizontally extending pressure plate, pairs of links interconnecting said pressure plate with said lower legs, a transverse shaft carried by one of said pairs of links, a collar revolubly mounted on said transverse shaft, an elongated screw threaded through said collar, a supporting collar revolubly carried by said bight portion, said screw extending revolubly through said supporting collar, and a handle affixed to one end of said screw.

2. A device as defined in claim 1 wherein said circular plate is provided with indicia adjacent its peripheral edge and wherein a pointer is affixed to said frame in cooperative relation to said indicia.

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